

Application No. 10/757,682
Response to Office Action

Customer No. 01933

Listing of Claims:

1. (Currently Amended) A plasma processing apparatus, wherein a plasma arc is generated from a plasma torch using a plurality of interchangeable consumable parts, ~~composed of an electrode and a nozzle to perform plasma work on a workpiece and which is equipped with a plurality of consumable parts, the definition of the consumable part being an electrode and/or a nozzle,~~ the apparatus comprising:

(a) ~~memory means for storing consumption data on every each of the plurality of consumable part, parts the consumption data being used for calculation of consumption;~~

(b) selecting means for selecting the stored consumption data corresponding to a consumable part in use;

(c) computing means for calculating consumption based on the consumption data selected by the selecting means; and

(d) displaying means for displaying the consumption calculated by the computing means,

wherein said each of the consumable parts comprises at least one of an electrode and a nozzle.

2. (Currently Amended) The plasma processing apparatus according to claim 1, further comprising operation stopping means for stopping ~~the~~ operation of the plasma processing apparatus

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upon completion of a processing operation if the consumption
5 calculated by the computing means reaches ~~the~~ a preset
consumption value.

3. (Currently Amended) The plasma processing apparatus
according to claim 1, further comprising warning means for
~~raising~~ sounding an alarm if the consumption calculated by the
computing means reaches a preset consumption value.

4. (Currently Amended) The plasma processing apparatus
according to claim 3, further comprising operation stopping means
for stopping ~~the~~ operation of the plasma processing apparatus
upon completion of a processing operation if the consumption
5 calculated by the computing means reaches ~~the~~ a preset
consumption value.

5. (Currently Amended) The plasma processing apparatus
according to claim 1, wherein the consumption data includes ~~some~~
~~or all of data items consisting at least one of the~~ a number of
arcing events, an arcing time and an arc current.

6. (Currently Amended) The plasma processing apparatus
according to claim 1, wherein the selecting means specifies one
of the interchangeable consumable parts as a consumable part to

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be used by referring to processing data input to the memory means.

7. (Currently Amended) The plasma processing apparatus according to claim 2, wherein the consumption data includes ~~some or all of data items consisting at least one of the~~ a number of arcing events, an arcing time and an arc current.

8. (Currently Amended) The plasma processing apparatus according to claim 3, wherein the consumption data includes ~~some or all of data items consisting at least one of the~~ a number of arcing events, an arcing time and an arc current.

9. (Currently Amended) The plasma processing apparatus according to claim 4, wherein the consumption data includes ~~some or all of data items consisting at least one of the~~ a number of arcing events, an arcing time and an arc current.

10. (Currently Amended) The plasma processing apparatus according to claim 2, wherein the selecting means specifies one of the interchangeable consumable parts as a consumable part to be used by referring to processing data input to the memory means.

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11. (Currently Amended) The plasma processing apparatus according to claim 3, wherein the selecting means specifies one of the interchangeable consumable parts as a consumable part to be used by referring to processing data input to the memory means.

12. (Currently Amended) The plasma processing apparatus according to claim 4, wherein the selecting means specifies one of the interchangeable consumable parts as a consumable part to be used by referring to processing data input to the memory means.